



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/712,074 | 11/13/2003 | Richard Allen Gill | 2002-106-TAP | 7921 |

7590 09/20/2006

Timothy R. Schulte
Storage Technology Corporation
One StorageTek Drive
Louisville, CO 80028-4309

| EXAMINER |
|----------|
|----------|

RODRIGUEZ, GLENDA P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2627

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,074

Applicant(s)

GILL, RICHARD ALLEN

Examiner

Glenda P. Rodriguez

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 9-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 9-12 are drawn to a “program product” *per se* as recited in the preamble on a computer readable media that could be a signal as defined on pages 11-12 in the Applicant’s Specification and as such is non-statutory subject matter. See MPEP §2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g. Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held non-statutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not

Art Unit: 2627

define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Jaquette et al. (US Patent No. 6, 856, 479 B2).

Regarding Claim 1, Jaquette et al. teach a method for writing data in a tape drive, the method comprising:

Allocating a blank area for transpose writing on a magnetic tape (It is inherent that if the medium is writing data, the method found or allocated an area for writing data.);

Writing a first plurality of data sets on the magnetic tape adjacent to the allocated blank area, wherein the tape drive maintains full operating speed during intervals between writing successive data sets, resulting in spaces between the data sets (Col. 5, L. 35-48, wherein Jaquette et al. teaches writing data with DSS and “only occasionally, typically when the buffer is empty, is the tape stopped”, hence the tape operates at full operating speed during intervals between data sets, DSS.);

And identifying a data timeout (Col. 7, L. 20-30 and Col. 2, L. 2-9, wherein Jaquette et al. indicated “backhitching” from writing in order to rewrite the data. Hence, it is inherent that if the medium has to stop, backhitch and rewrite the data, then the medium has “timed-out” from regular read/write operations and proceeded to rewrite previously written data.); and

Performing, in response to the data timeout, a single repositioning of the tape and writing a transposed data block to the allocated blank area, wherein the transposed data block contains the same content as the first plurality of data sets (Col. 7, L. 20-30 and Col. 2, L. 2-9, wherein Jaquette et al. indicated “backhitching” from writing in order to rewrite the data. Also, note in Fig. 3 that the media rewrite the contents, which are found in Elements 50, 51 and 52.).

Apparatus claim (5 and 9) are drawn to the apparatus corresponding to the method of using same as claimed in claim (1). Therefore apparatus claims (5 and 9) correspond to method claim (1), and are rejected for the same reasons of obviousness as used above.

6. Claims 2-4, 6-8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaquette et al. in view of Contreras et al. (US Patent No. 5, 995, 306).

Regarding Claim 2, 6 and 10, Jaquette et al. teach all the limitations of Claims 1 and 5, respectively. However, Jaquette et al. does not explicitly teach wherein allocating a second blank area for writing data sets. Contreras et al. further teaches this limitation in Col. 4, L. 3-8. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Jaquette et al.’s invention with the teaching of Contreras et al. in order to be able to re-record defective data as taught in the Summary of Contreras et al.

Regarding Claims 3, 7 and 11, Jaquette et al. teach all the limitations of Claim 1 and 5, respectively. However, Jaquette et al. does not explicitly teach wherein the data written on both the first plurality of data sets and the transposed data block is stored on a buffer. This is taught by Contreras et al. in Col. 48, L. 19-21.

Regarding Claim 4, 8 and 12, the combination of Jaquette et al. and Contreras et al. teach all the limitations of Claims 3, 7 and 11, respectively. Contreras et al. further teach wherein the size of the blank area allocated for transpose writing is determined by the size of the data buffer and a specified data transfer rate (Col. 38, L. 61-67).

Response to Arguments

7. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new grounds of rejection due to the newly amended Claims.

Conclusion



8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US Patent No. 6, 970, 311 to Jaquette.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


gpr
09/08/06.
WAYNE YOUNG
SUPERVISORY PATENT EXAMINER